

REMARKS

Claims 1-30 were pending in the application prior to this amendment. Claims 1-25 and 27-30 have been amended. Claim 26 has been cancelled. New claims 31-36 have been added. At least in light of the above amendments and the foregoing remarks, reconsideration and allowance of the claims is respectfully requested.

Claim Rejections – 35 U.S.C. § 101

Claims 1-13 and 22-26 have been rejected under 35 U.S.C. § 101 on the basis that the claimed invention is directed to non-statutory subject matter.

Claims 1-13 and 22-25 have been amended according to the suggestion made by the Examiner. Claim 26 has been cancelled.

Claim Rejections – 35 U.S.C. § 102

Claims 1, 2, 4-22 and 24-30 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,199,018 (Quist, et al.).

Claim 1 has been amended. Applicant claims adjusting a reference failure rate by a field measured actual operating temperature and actual traffic-based stress ratio. *See* page 20, lines 5-21 and page 21 lines 1-9. None of the references disclose this feature.

Quist discloses a monitoring device 12 that monitors a hard drive's operating temperature, vibration output and flux output, which is used to determine the hard drive's status. The hard drive's status is displayed with a visual indicator; a green indicator is used when the hard drive is operating properly, a yellow indicator is used when the hard drive appears to be about to fail, and a red indicator is used when the hard drive is failing or has failed. *See* col. 36-48. The color of the visual indicator is not based on a quotient of an amount of failures associated with a population of the hard drive and an amount of time. Even if the color of the visual indicator were based on a reference failure rate (which it is not), the visual indicator is still not a mathematical product of the reference failure rate, a temperature stress adjustment factor and an electrical stress adjustment factor.

In contrast, the claimed apparatus is configured to output an instantaneous failure rate that is a mathematical product of the reference failure rate (which is in turn a quotient of an amount of failures associated with a population of the monitored device and an amount of time),

the temperature stress adjustment factor and the electrical stress adjustment value. Thus, claim 1 should be allowed. Claims 2-13 are dependant and should also be allowed.

Claim 14 has been amended to include the feature of means for determining an instantaneous failure rate by adjusting a reference failure rate for a monitored device according to a comparison of the expected environmental conditions and the expected usage parameters to the measured actual operating temperature and the measured actual electrical stress. *See* at least page 20, lines 5-21 and page 21 lines 1-9. None of the references teach at least this feature.

Quist discloses a monitoring device 12 that monitors a hard drive's operating temperature, vibration output and flux output, which is used to determine the hard drive's status. The hard drive's status is displayed with a visual indicator; a green indicator is used when the hard drive is operating properly, a yellow indicator is used when the hard drive appears about to fail, and a red indicator is used when the hard drive is failing or has failed. *See* col. 36-48. The color of the visual indicator is not determined by adjusting a reference failure rate according to a comparison.

In contrast, claim 14 includes the feature of means for determining an instantaneous failure rate by adjusting the reference failure rate according to a comparison of the expected environmental conditions and the expected usage parameters to the measured actual operating temperature and the measured actual electrical stress. Thus claim 14 should be allowed. Claims 15-21 are dependent and should also be allowed. Claims 22-25 and 27-30 should be allowed for at least similar reasons as claims 1-21.

Claim Rejections – 35 U.S.C. § 103

Claims 3 and 23 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Quist, et al. in view of U.S. Patent No. 5,802,592 (Chess, et al.).

Claims 3 and 23 are dependent and should be allowed for at least the same reasons as their respective base claims.

New Claims

New claims 31-33 have been added. Support for the new claims can be found in the present specification, page 30, lines 10-18. Quist does not output a field adjusted MTBF.

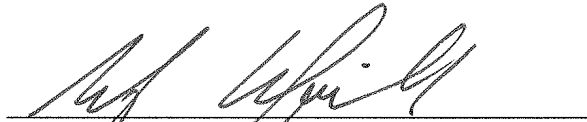
New claims 34-36 have been added. Support for the new claims can be found in the present specification, page 21, lines 5-10.

CONCLUSION

For the foregoing reasons, reconsideration and allowance of all pending claims is requested. The Examiner is encouraged to telephone the undersigned at 503-222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,

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